

# PHILCO TUBES

*Characteristics --- Interchangeability --- Base Pin Diagrams*

PHILCO TUBES Improve the Performance of Any Radio

Type Number	Similar To	DESCRIPTION	Base Connection	Filament Volts	Filament Amps	Filament Type	Plate Volts	Screen Volts	Control Grid Volts	Plate Current (mA)	Screen Current (mA)	Amplification Factor	Mutual Coupling Coefficient in Micromhos	Power Output in Milliwatts	Load Resistance in Ohms
0Z4	0Z3	Full Wave Gaseous Rectifier *	4R			Cold	350								
0Z4G		Full Wave Gaseous Rectifier	4R			Cold	350								
01A		Triode Detector-Amplifier	4D	5.0	0.250	F(1)	90 135		-4.5 -9.0	2.5 3.0		8 8	725 800		
1A1		Current Regulator	4A	0.7	0.500	F									
1A4P		Super Control R.F. Pentode	4M	2.0	0.060	F(O)	180	67.5	-3.0	2.3	0.8	750	750		
1A4T	1A4	Super Control R.F. Tetrode †	4K	2.0	0.060	F(O)	180	67.5	-3.0	2.3	0.7	720	750		
1A5GT/G	1A5G	Power Output Pentode	6X	1.4	0.050	F(O)	85	85	-4.5	3.5	0.7		800	100	25000
1A6	1C6-1D7G	Pentagrid Converter	6L	2.0	0.060	F(O)	135 180	67.5 90	-3.0 -3.0	1.2 1.3	2.5 2.4		275 300		
1A7G		Pentagrid Converter	7Z	1.40	.050	F(O)	90	90	0	.60	.65		125		
1A7GT	1A7G	Pentagrid Converter	7Z	1.4	0.050	F(O)	90	45	0	0.55	0.60		250		
1B4P		Screen Grid R. F. Pentode	4M	2.0	0.060	F(O)	180	67.5	-3.0	1.7	0.6	1000	650		
1B5-255	1H6G	Duplex Diode Triode	6M	2.0	0.060	F(O)	135		-3.0	0.8		20	575		
1C1		Current Regulator	4A	0.7	0.740	F									
1C5GT/G	1C5G	Power Output Pentode	6X	1.4	0.100	F(O)	90	90	-9.0	6.0	1.4	180	1550	240	8000
1C6	1A6-1C7G	Pentagrid Converter	6L	2.0	0.120	F(O)	135 180	67.5 67.5	-3.0 -3.0	1.3 1.5	2.0 2.0		300 325		
1C7G	1C6	Pentagrid Converter °	7Z	2.0	0.120	F(O)	135 180	67.5 67.5	-3.0 -3.0	1.3 1.5	2.0 2.0		300 325		
1D1		Current Regulator	4A	1	.240	F									
1D5GP		Super Control R.F. Pentode *	5Y	2.0	0.060	F(O)	180	67.5	-3.0	2.3	0.8	750	750		
1D5GT	1A4	Super Control R.F. Tetrode °	5R	2.0	0.060	F(O)	180	67.5	-3.0	2.3	0.7	720	750		
1D7G	1A6	Pentagrid Converter °	7Z	2.0	0.060	F(O)	135 180	67.5 67.5	-3.0 -3.0	1.3 1.3	2.0 2.4		275 300		
1D8GT		Diode Triode Power Amplifier Pentode	8AJ	1.4	0.100	F(O)	90 90	90 (Triode)	-9.0	5.0	1.0	25	925	200	12000
1E4G		Triode Voltage Amplifier	5S	1.4	0.050	F(O)	90		0	1.1			575		
1E5GP		Screen Grid R.F. Pentode °	5Y	2.0	0.060	F(O)	180	67.5	-3.0	1.7	0.4	1000	650		
1E7G	2-1F4	Double Pentode Power Amplifier °	8C	2.0	0.240	F(O)	135	135	-4.5	7.5	2.1	350	1600		
1F1		Current Regulator	4A	0.7	0.720	F									
1F4	950-1F5G	Output Pentode °	5K	2.0	0.120	F(O)	135	135	-4.5	8.0	2.6	360	1700	340	16000
1F5G	950-1F4	Output Pentode °	6X	2.0	0.120	F(O)	135	135	-4.5	8.0	2.6	360	1700	340	16000
1F6		Duplex Diode Pentode	6W	2.0	0.060	F(O)	180	67.5	-1.5	2.0	0.6	650	650		
1F7G	1F6	Duplex Diode Pentode °	7AD	2.0	0.060	F(O)	180	67.5	-1.5	2.0	0.6	650	650		
1F7GY	1F6	Duplex Diode Pentode	7AF	2.0	0.060	F(O)	180	67.5	-1.5	2.0	0.6	650	650		
1G4GT/G	1G4G	Triode Voltage Amplifier	5S	1.4	0.050	F(O)	90		-6.0	2.3	8.8	200	825		
1G5G	1F4	Output Pentode °	6X	2.0	0.120	F(O)	90	90	-6.0	8.5	2.7	200	1500	300	8500



# PHILCO TUBES (CONTINUED)

Type Number	Similar To	DESCRIPTION	Base Connection	Filament Volts	Filament Amps.	Filament Type	Plate Volts	Screen Volts	Control Grid Volts	P Plate Current (mA)	Screen Current (mA)	Amplification Factor	Mutual Conductance in Micromhos	Output in Milliwatts	Load Resistance
5U4G	5Z3	Full Wave Rectifier °	5T	5.0	2.000	F(O)	500			250					
5Y4G	83Y	Full Wave Rectifier °	5L	5.0	2.000	C	400			200					
5W4GT/G	5W4G	Full Wave Rectifier °	5T	5.0	1.5	F(O)	400			90					
5Y4G	5Z3	Full Wave Rectifier °	5Q	5.0	3.000	F(O)	500			250					
5Y3G	80	Full Wave Rectifier °	5T	5.0	2.000	F(O)	400			110					
5Y4G	80	Full Wave Rectifier °	5Q	5.0	2.000	F(O)	400			110					
5Z3		Full Wave Rectifier °	4C	5.0	3.000	F(O)	500			250					
5Z4		Full Wave Rectifier °	5L	5.0	2.000	C	400			125					
6		Ballast Tube	4A	1.0	0.695	F									
6A3		Power Amplifier Triode	4D	6.3	1.000	F(O)	250 300	Push-Pull	-45 -62	60 40		4.2	5250 15000	3500 15000	2500 3000
6A4		Power Amplifier Pentode	5B	6.3	0.300	F(O)	180 100	180 100	-12.0 -6.5	22 9	3.9 1.6	100 100	2200 1200	1400 310	8000 11000
6A5G	6A3	Power Amplifier Triode °	6T	6.3	1.000	C	250		-45	60		4.2	5250	3750	2500
6A6		Class B Twin Amplifier	7B	6.3	0.800	C	294 300	Class A Class B	-6.0 0	7 17.5		35	3200	10006	10000(2)
6A7		Pentagrid Converter	7C	6.3	0.300	C	250 100	100 50	-3.0 -1.5	3.5 1.3	2.2 2.5		520 350		
6A8	6A7	Pentagrid Converter °	8A	6.3	0.300	C	250 100	100 50	-3.0 -1.5	3.3 1.2	3.2 1.5		500 350		
6A8G	6A7	Pentagrid Converter °	8A	6.3	0.300	C	250 100	100 50	-3.0 -1.5	3.3 1.2	3.2 1.5		500 350		
6A8GT	6A8G	Pentagrid Converter	8A	6.3	0.300	C	250	100	-3	3.3	3.2		500		
6AC5G		Dynamic Coupled Amplifier	6Q	6.3	0.400	C	250		-13	32		125	3400	3700	7000
6AF5G		Triode Voltage Amplifier	6Q	6.3	0.300	C	180		-18	7.0		7.4	1500		
6B4G	6A3	Power Amplifier Triode °	5S	6.3	1.000	F(O)	250		-45.0	60		4.2	5250	3500	2500
6B5		Power Amplifier Direct Coupled	6AS	6.3	0.800	C	300 300	Input Output	0 0	8 45		58	2400	4000	7000
6B7		Duplex Diode Pentode	7D	6.3	0.300	C	250 100	125 100	-3.0 -3.0	9.0 5.8	2.3 1.7	730 285	1125 950		
6B8	6B7	Duplex Diode Pentode °	8E	6.3	0.300	C	250	125	-3.0	10.0	2.3	800	1325		
6B8G	6B7	Duplex Diode Pentode °	8E	6.3	0.300	C	250	100	-3.0	6.0	1.5	800	1000		
6C5	76	Triode Detector-Amplifier °	6Q	6.3	0.300	C	250		-8.0	8		20	2000		
6C5G	76	Triode Detector-Amplifier °	6Q	6.3	0.300	C	250		-8.0	8		20	2000		
6C6	77	Triple Grid Detector-Amplifier	6F	6.3	0.300	C	250 100	100 100	-3.0 -3.0	2 2	0.5 0.5	1500+ 1185	1225 1185		
6C8G		Double Triode °	6G	6.3	0.300	C	250		-4.5	3.1		38	1450		
6D6	78	Super Control R.F. Amplifier	6F	6.3	0.300	C	250	100	-3.0	8.2	2.0	1280	1600		
6D8G	6A7	Pentagrid Converter °	8A	6.3	0.150	C	135 250	67.5 100	-3.0 -3.0	8.0 13.0			325 500		
6E5		Electron Ray Tuning Indicator	6R	6.3	0.300	C	250		0 to -8						
6F5		Triode-High Mu °	5M	6.3	0.300	C	250		-2.0	0.9		100	1500		
6F5G	6F5	Triode-High Mu °	5M	6.3	0.300	C	250		-2.0	0.9		100	1500		
6F5GT	6F5G	Triode-High Mu	5M	6.3	0.300	C	250		-2	0.9		100	1500		
6F6	42	Power Amplifier Pentode °	7S	6.3	0.700	C	250	250	-16.5	34	6.5	200	2500	3000	7000
6F6G	42	Power Amplifier Pentode °	7S	6.3	0.700	C	250	250	-16.5	34	6.5	200	2500	3000	7000

# PHILCO TUBES (CONTINUED)

Type Number	Similar To	DESCRIPTION	Base Connection	Filament Volts	Filament Amps.	Filament Type	Plate Volts	Screen Volts	Control Grid Volts	Plate Current (Ma)	Screen Current (Ma)	Amplification Factor	Mutual Conductance in Micromhos	Power Output in Milliwatts	Load Resistance in Ohms
6F7		Triode-Pentode	7E	6.3	0.300	C	100 250	(Triode) 100	-3.0 -3.0	3.5 6.5	1.5	8 900	450 1100		
6F8G		Double Triode	8G	6.3	0.600	C	250		-9	9		20	2600		
6G5/6V5		Electron Ray Tuning Indicator, Special Power Output Pentode	6R	6.3	0.300	C	250		0 to -22						
6G6G		Duplex Diode	7S	6.3	0.150	C	180	180	-9	15	2.5	400	2300	1100	10000
6H6		Duplex Diode	7Q	6.3	0.300	C	100		2	2					
6H6G	6H6	Duplex Diode	7Q	6.3	0.300	C	100		2	2					
6H6GT	6H6G	Duplex Diode	7Q	6.3	0.300	C	100		2.0	2.0					
6J5GT/G	6J5G	General Purpose Triode	6Q	6.3	0.300	C	250		-8	9.0		20	2600		
6J7	6C6-77	Triple Grid Detector-Amplifier	7R	6.3	0.300	C	250 100 100	100 100 100	-3.0 -3.0 -3.0	2 2 2	0.5 0.5 0.5	1500+ 1185 1225	1225 1185 1225		
6J7G	6C6-77	Triple Grid Detector-Amplifier	7R	6.3	0.300	C	250 100 100	100 100 100	-3.0 -3.0 -3.0	2 2 2	0.5 0.5 0.5	1500+ 1185 1225	1225 1185 1225		
6J7GT	6J7G	Triple Grid Detector-Amplifier	7R	6.3	0.300	C	Tri. 250 Hex. 250	100	-3	5.0			290		
6J8G		Triode-Heptode Converter	8H	6.3	0.300	C	250		-3.0	1.1	2.9	70	1400		
6K5G	6F5	High Mu Triode	5U	6.3	0.300	C	250		-3.0	1.1		70	1400		
6K5GT	6K5G	Triode High Mu	5U	6.3	0.300	C	250		-3	1.1		70	1400		
6K6G	4I	Power Amplifier Pentode	7S	6.3	0.400	C	250	250	-18.0	32.0	5.5	150	2200	3400	7600
6K6GT	6K6G	Power Amplifier Pentode	7S	6.3	0.400	C	250	250	-18	32	5.5	150	2200	3400	7600
6K7	6D6-78	Super Control R.F. Amplifier	7R	6.3	0.300	C	250 90	100 90	-3.0 -3.0	7.0 5.4	1.7 1.3	1160 400	1450 1275		
6K7G	6D6-78	Super Control R.F. Amplifier	7R	6.3	0.300	C	250 90	100 90	-3.0 -3.0	7.0 5.4	1.7 1.3	1160 400	1450 1275		
6K7GT	6K7G	Super Control R.F. Amplifier	7R	6.3	0.300	C	250	125	-3.0	10.5	2.6	990	1650		
6K8		Triode-Hexode Converter	8K	6.3	0.300	C	Tri. 100 Hex. 250	100	-3.0	3.5	6.0		300	(Triode Grid Resistor 50000 Ohms)	
6K8G	6K8	Triode-Hexode Converter	8K	6.3	0.300	C	Tri. 100 Hex. 250	100	-3.0	3.8	6.0		300	(Triode Grid Resistor 50000 Ohms)	
6K8GT	6K8G	Triode-Hexode Converter	8K	6.3	0.300	C	Tri. 100 Hex. 250	100	-3.0	3.8	6.0		300	(Triode Grid Resistor 50000 Ohms)	
6L5G	76	Triode Detector-Amplifier	6Q	6.3	0.150	C	135 250		-3	2.3	6.0		350		
6L6		Beam Power Amplifier	7AC	6.3	0.900	C	250		-5.0 -9.0	3.5 8.0		17 17	1500 1900		
6L6G	6L6	Beam Power Amplifier	7AC	6.3	0.900	C	250	250	-14.0	72	5.0	135	6000	6500	2500
6L7		Pentagrid Mixer Amplifier	7T	6.3	0.300	C	250	250	-14.0	72	5.0	135	6000	6500	2500
6L7G	6L7	Pentagrid Mixer Amplifier	7T	6.3	0.300	C	250	250	-3.0	5.3	5.5	880	1100		
6N5	6G5	Electron Ray Tuning Indicator	6R	6.3	0.150	C	250	100	0 to 12	0.5	5.5	880	1100		
6N6G	6B5	Power Amplifier Direct Coupled	7W	6.3	0.800	C	250			6.5				2500	7000
6N7	6A6	Class B Twin Amplifier	8B	6.3	0.800	C	250	0	33.0	0				10000	10000
6N7G	6A6	Class B Twin Amplifier	8B	6.3	0.800	C	300	0	17.5	0				10000	10000
6P5GT/G	76	General Purpose Triode	8B	6.3	0.300	C	250		-3.5	5.0		13.8	1450		
6P7G	6F7	Triode-Pentode	7U	6.3	0.300	C	100 250	(Triode) 100	-3.0 -3.0	3.5 6.5	1.5	8 900	450 1100		
6Q7	75	Duplex Diode-Triode	7V	6.3	0.300	C	250		-3.0	1.1		70	1200		



# PHILCO TUBES (CONTINUED)

Type Number	Similar To	DESCRIPTION	Base Connection	Filament Volts	Filament Amps	Filament Type	Plate Volts	Screen Volts	Control Volts	Grid Current (mA)	Screen Current (mA)	Amplification Factor	Mutual Conductance in Micromhos	Power Output in Milliwatts	Load Resistance in Ohms
6Q7G	75	Duplex Diode-Triode °	7V	6.3	0.300	C	250		-3.0	1.1		70	1200		
6Q7GT	6Q7G	Duplex Diode-Triode	7V	6.3	0.300	C	250		-3.0	1.1		70	1200		
6R7		Duplex Diode-Triode °	7V	6.3	0.300	C	250		-9.0	9.5		16	1900	275	10000
6R7G		Duplex Diode-Triode °	7V	6.3	0.300	C	250		-9.0	9.5		16	1900	275	10000
6S7G	6D6	Super Control R.F. Amplifier °	7R	6.3	0.150	C	135	67.5	-3.0	3.7	0.9	850 min.	1250		
6SA7GT/G	6SA7	Pentagrid Converter	8AD	6.3	0.300	C	250	100	-3.0	8.5	2.0	1100 min.	1750		
6SC7		Twin Triode Amplifier	8S	6.3	0.300	C	250	100	-2.0	3.4	8.0		450		
6SF5	6F5	High Mu Triode	6AB	6.3	0.300	C	250		-2.0	2.0		70	1325		
6SJ7	6J7	Triple Grid Detector Amplifier	8N	6.3	.300	C	250		-2	0.9		100	1500		
6SK7GT/G	6K7G	Super Control R. F. Amplifier	8N	6.3	0.300	C	250	100	-3	3.0	0.8	2500	1650		
6SQ7GT/G	6Q7G	Duplex Diode-Triode	8Q	6.3	0.300	C	250	100	-3	9.2	2.4	1600	2000		
6T7G	75	Duplex Diode-Triode °	7V	6.3	0.150	C	250		-2.0	0.8		100	1100		
6U7G		Super Control R.F. Amplifier °	7R	6.3	0.300	C	250	100	-3	1.2		65	1050		
6V6GT/G	6V6G	Beam Power Amplifier	7AC	6.3	0.450	C	250	250	-12.5	47	6.5	1280	1600		
6V7G	85	Duplex Diode-Triode °	7V	6.3	0.300	C	250		-20	8.0		8.3	1100	4250	5000
6W7G	6J7G	Triple Grid Detector-Amplifier	7R	6.3	0.150	C	250	100	-3	2.0	0.5	1850	1225	350	20000
6X5GT/G	84	Full Wave Rectifier	6S	6.3	0.600	C	350			75					
6Y6G		Power Amplifier Tetrode	7AC	6.3	1.250	C	135	135	-13.5	58	3		7000	3600	2000
6Y7G	79	Class B Twin Amplifier °	8B	6.3	0.600	C	250		0	10.5			8000	14000	
6Z7G		Class B Twin Amplifier	8B	6.3	0.300	C	180		0					4200	12000 [P.P.]
6Z7SG		Full Wave Rectifier	6S	6.3	0.300	C	350			35					
7A4		General Purpose Triode	5AC	7.0	0.320	C	250		-8	9.0		20	2600		
7A5		Power Output Pentode	6AA	7.0	0.750	C	175	125	-9.0	37.5	3.2		6100	1900	2700
7A6		Duplex Diode	7AJ	7.0	.160	C	150	R.M.S. Max.		10 Max.					
7A7		Super Control R.F. Amplifier	8V	7.0	0.320	C	250	100	-3.0	8.6	2.0	1600	2000		
7A8		Octode Converter	8U	7.0	0.160	C	250	100	-3.0	3.0	2.8		600		
7B5		Pentode Power Amplifier	6AE	7.0	0.430	C	250	250	-18.0	32	5.5	150	2200	3400	7600
7B6		Duo Diode Triode	8W	7.0	0.320	C	250		-2.0	1.0		100	1100		
7B7		Super Control R.F. Amplifier	8V	7.0	0.160	C	250	100	-3.0	8.5	2.0	1200	1700		
7B8		Pentagrid Converter	8X	7.0	0.320	C	250	100		3.5	2.7		550		
7C5		Tetrode Power Amplifier	6AA	7.0	0.480	C	250	250	-12.5	45	4.5		4100	4250	5000
7C6		Duo Diode High Mu Triode	8W	7.0	0.160	C	250			1.3		100	1000		
7C7	6W7G	Triple Grid Detector-Amplifier	8V	7.0	0.160	C	250	100	-3	2.0	0.5		1300		
7E6	6R7G	Duplex Diode-Medium Mu Triode	8W	7.0	0.320	C	250		-9	9.5		16	1900		
7E7		Duplex Diode Pentode	8AE	7.0	0.320	C	250	100	-3.0	7.5	1.6		1300		
7F7		Double Triode Amplifier	8AC	7.0	0.320	C	250		-2.0	2.3		70	1600		
7H7		Semi-Remote Cutoff Amplifier	8V	7.0	0.320	C	250	150	-2.5	9.0	2.5		3500		
7J7		Triode Hexode Converter	8AR	7.0	0.320	C	250	100	-3.0	1.4	2.8	14	310		
							Tri. 150		-3.0	7.5			1350		
7L7		R.F. Pentode	8V	7.0	0.320	C	250	100	-1.5	4.5	1.5		3100		
7Q7		Pentagrid Converter	8AL	7.0	0.320	C	250	100	0	3.4	8.0		450		
7V7		Amplifier Pentode	8V	6.3	0.450	C	300	150	-6	9.6	3.9		5800		
7Y4		Full Wave Rectifier	5AB	7.0	0.530	C	350			60					

# PHILCO TUBES (CONTINUED)

Type Number	Similar To	DESCRIPTION	Base Connection	Element Voits	Filament Amps	Filament Type	Plate Voits	Screen Voits	Control Voits	Plate Current (mA)	Screen Current (mA)	Amplification Factor	Mutual Conductance in Micromhos	Power Output in Milliwatts	Load Resistance in Ohms
7Z4		Full Wave Rectifier	5AB	6.3	0.900	C	325			100					
9		Ballast Tube	4A	50.0	0.300	F						8	1600	1600	10200
10		Power Amplifier Triode	4D	7.5	1.250	F(OT)	425		-39.0	18			1800	1285	10450
12A		Triode Detector-Amplifier	4D	5.0	0.250	F(O)	180		-13.5	7.7			1575	35	5000
							90		-4.5	5.0					
12A5		Power Amplifier Pentode	7F	6.3	0.600	C	180	180	-27.0	38	8	90	2300	2600	3800
				12.6	0.300	C					2.5	100			
12A7		Pentode and Half Wave Rectifier	7K	12.5	0.150	C	135	135	-13.5	9	2.5				
				12.5	0.150	C	125	125	-3.0	3.5	2.7		550		
12ABG	6ABG	Pentagrid Converter	8A	12.5	0.150	C	250	100	-3.0	3.5	2.7		500		
12ABGT	6ABG	Pentagrid Converter	8A	12.5	0.150	C	250	100	-3	3.3	3.2		1800		
			8T	12.6	0.300	C	P90	90	-3.0	7.0	2.0	360	2400		
12B8GT		Pentode	8T	12.6	0.300	C	150	150	-2.8	2.8					
			8E	12.6	0.150	C	250	125	-3.0	10.0	2.3	800	1325		
12C8		Duo Diode Pentode	5M	12.5	0.150	C	250	250	-2.0	0.9			1500		
				12.6	0.150	C	250	250	-8	9.0		20	2600		
12F5GT	6F5G	High Mu Triode	6Q	12.6	0.150	C	250	100	-3.0	2.0	0.5	1500	1225		
12J5GT	6J5G	General Purpose Triode	7R	12.5	0.150	C	250	125	-3.0	10.5	2.6	990	1650		
12J7GT	6J7G	Triple Grid Detector Amplifier	7R	12.5	0.150	C	250	100	-3.0	7.0	1.7	1160	1450		
12K7G	6K7G	Super Control R.F. Amplifier	7R	12.5	0.150	C	250	100	-3.0	1.1		70	1200		
12K7GT	6K7G	Super Control R.F. Amplifier	7V	12.5	0.150	C	250	250	-2	3.4	8.0	70	1200		
12Q7G	6Q7G	Duplex Diode High Mu Triode	7V	12.5	0.150	C	250	100	-2	3.4	8.0	70	1200		
12Q7GT	6Q7G	Duo Diode High Mu Triode	8AD	12.6	0.150	C	250	250	-2.0	2.0		450			
12S7GT/G	6S7	Pentagrid Converter	8S	12.6	0.150	C	250	250	-2.0	0.9		100	1500		
				12.6	0.150	C	250	250	-2.0	0.9		100	1500		
12SC7		Twin Triode Amplifier	6AB	12.6	0.150	C	250	100	-3.0	3.0	0.8	2500	1650		
12SF5GT/G	6F5G	High Mu Triode	8N	12.6	0.150	C	250	100	-3.0	3.0	0.8	2500	1650		
12SJ7		Triple Grid Detector-Amplifier	8N	12.6	0.150	C	250	100	-3.0	9.2	2.4	1600	2000		
12SK7GT/G	6K7G	Super Control R.F. Amplifier	8N	12.6	0.150	C	250	100	-2.0	0.8		100	1100		
12SQ7GT/G	6Q7G	Duplex Diode High Mu Triode	8Q	12.6	0.150	C	250	250	-2.0	0.8		16	1900		
12SR7	6R7	Duplex Diode Triode	8Q	12.6	0.150	C	250	250	-9.0	9.5					
12Z3		Half Wave Rectifier	4G	12.6	0.300	C	250	250		60					
			5E	14.0	0.300	C	250	90	-3.0	4	1.5	525	1050		
14		Screen Grid R.F. Amplifier	5F	2.0	0.270	C	67.5	67.5	-1.5	1.8	0.3	450	710		
15		Screen Grid R.F. Amplifier	5A	14.0	0.300	C	180	250	-13.5	5		9	1000		
17	32	Triode General Purpose	6B	14.0	0.300	C	250	250	-16.5	34	7.5	185	2350	3400	7000
18		Power Amplifier Pentode	6C	2.0	0.260	F(O)	135	67.5	6	10			2100(2)	10000(2)	
19	1J6G	Class B Twin Amplifier	4K	3.3	0.132	F(O)	135	67.5	-1.5	3.7	1.3	160	500		
22		Screen Grid R.F. Amplifier	5E	2.5	1.750	C	250	90	-3.0	4	1.7	630	1050		
24A		Screen Grid R.F. Amplifier	7S	25.0	0.300	C	180	135	-20	38	7.5	100	2500	2750	5000
25A6GT/G	25A6G	Power Amplifier Pentode	8F	25.0	0.300	C	100	100	-15	20.5	4.0	90	1800	770	4500
25A7G		Pentode and Half Wave Rectifier	8F	25.0	0.300	C	125	100	-15	20.5	4.0	90	1800	770	4500
25A7GT	25A7G	Pentode and Half Wave Rectifier	6Q	25.0	0.300	C	110	125	15	45		58	3800	2000	2000
25AC5G	6AC5G	Power Amplifier-Positive Grid	7S	25.0	0.300	C	95	95	-15	45	4.0	4000	1750	2000	
25B6G	43	Power Amplifier-Pentode	8T	25.0	0.150	C	P100	100	-1	0.6		112.5	1500		
25B8GT	12B8GT	Triode-Pentode	8T	25.0	0.150	C	P100	100	-3	7.6	2.0	370	2000		

Type Number	Similar To	DESCRIPTION	Base Connection	Filament Amps.	Filament Type	Plate Volts	Screen Volts	Control Grid Volts	Plate Current (mA)	Screen Current (mA)	Amplification Factor	Mutual Con. Microhms	Power Output in Milliwatts	Load Resistance in Ohms	
25C6G		Beam Power Amplifier	7AC	25.0	0.300	C	200	135	-14.0	66	9.0	7100	6000	2600	
25L6		Beam Power Amplifier	7AC	25.0	0.300	C	110	110	-8	45	3.5	80	2200	2000	
25L6G		Beam Power Amplifier	7AC	25.0	0.300	C	110	110	-8.0	45	3.5	80	2200	2000	
25L6GT		Beam Power Amplifier	7AC	25.0	0.300	C	110	110	-7.5	49	4.0	82	2200	2000	
25Z5	25Y5	Voltage Doubling Rectifier	6E	25.0	0.300	C	125		100						
25Z6	25Z5	Voltage Doubling Rectifier	7Q	25.0	0.300	C	125		85						
25Z6G	25Z5	Voltage Doubling Rectifier	7Q	25.0	0.300	C	125		85						
26		Triode Amplifier	7Q	25.0	0.300	C	125		85						
27	56	Triode Detector-Amplifier	4D	1.5	1.050	F(O)	180		-14.5	6.2	8.3	1150			
30	1H4G	Triode Detector-Amplifier	5A	2.5	1.750	C	250		-21.0	5.2	9.0	975			
31		Power Amplifier Triode	4D	2.0	0.060	F(O)	180		-13.5	3.1	9.3	900			
32	1B4	Screen Grid R.F. Amplifier	4K	2.0	0.130	F(O)	180		-10.0	12.3	3.8	1050	375	5700	
		Rectifier	4K	2.0	0.060	F(O)	180	67.5	-3.0	1.7	0.4	780	650		
32L7GT		Beam Power Amplifier	8F	32.5	0.300	C	125	90	-7.0	27	2.0	81	4800	1000	2600
33		Power Amplifier Pentode	5K	2.0	0.260	F(O)	180	180	-18.0	22	5	90	1700	1400	6000
34	1A4	Super Control R.F. Amplifier	4M	2.0	0.060	F(O)	180	67.5	-3.0	2.8	1.0	620	620		
35-51		Super Control R.F. Amplifier	5E	2.5	1.750	C	250	90	-3.0	6.5	2.5	420	1050		
35A5		Power Amplifier Pentode	6AA	35.0	0.160	C	110	110	-7.5	35	2.8	5500	1400	2500	
35L6GT/G		Beam Power Amplifier	7AC	35.0	0.150	C	110	110	-7.5	40	3	80	1500	2500	
35Z3		Half Wave Rectifier	4Z	35.0	0.160	C	250		100						
35Z4GT		Half Wave Rectifier	5AA	35.0	0.150	C	250		100						
35Z5GT/G		Half Wave Rectifier	6AD	35.0	0.150	C	125		100						
36-36A		Screen Grid R.F. Amplifier	5E	6.3	0.300	C	250	90	-3.0	3.2	1.7	595	1080		
37-37A		Triode Detector-Amplifier	5A	6.3	0.300	C	250		-18.0	7.5	9.2	1100			
38-38A		Power Amplifier Pentode	5F	6.3	0.300	C	250	250	-25.0	22	3.8	120	1200	2500	10000
39/44		Super Control R.F. Amplifier	5F	6.3	0.300	C	250	90	-3.0	5.8	1.4	1050	1050		
39A/44A		Triode Voltage Amplifier	4D	5.0	0.250	F(T)	180		-3.0	0.2	30	200			
40		Power Amplifier Pentode	6B	6.3	0.400	C	250	250	-18.0	32	5.5	150	2200	3400	7600
41	42	Power Amplifier Pentode	6B	6.3	0.700	C	250	250	-16.5	34	6.5	220	2200	3000	7000
42		Power Amplifier Pentode	6B	25.0	0.300	C	180	135	-20.0	40	8	96	2400	2750	5000
43		Power Amplifier Pentode	6B	25.0	0.300	C	180	135	-20.0	40	8	96	2400	2750	5000
44		Power Amplifier Triode	4D	2.5	1.500	F(O)	250		-50	34	3.5	2175	1600	3900	
45A	45	Power Amplifier Triode	4D	2.5	1.500	F(O)	325		-68	43	3.5	2370	3000	3200	
45Z5GT		Half Wave Rectifier	6AD	45.0	0.150	C	125		100						
46		Power Amplifier Dual Grid	5C	2.5	1.750	F(O)	(A)1250 (B)400		-33	22	5.6	2350	1250	6490	
47		Power Amplifier Pentode	5B	2.5	1.750	F(O)	250	250	-16.5	31	6	150	2000(2)	5800(2)	
48		Power Amplifier Tetrode	6A	30.0	0.400	C	125	100	-20.0	56	9.5	2500	2700	7000	
							96	96	-19.0	52	9.0	3900	2500	1500	
49		Power Amplifier Dual Grid	5C	2.0	0.120	F(O)	(A)1135 (B)180		-20.0	6	4.7	1125	170	11000	
50		Power Amplifier Triode	4D	7.5	1.250	F(O)	450	55	-84	55	3.8	2100	4600	4350	
50L6GT	6L6G	Beam Power Amplifier	7AC	50.0	0.150	C	110	110	-7.5	43	4	6800	1750	2000	
50Y6GT/G		Full Wave Rectifier	7Q	50.0	0.150	C	125		85						
53		Class B Twin Amplifier	7B	2.5	2.000	C	300		0	17.5					
55		Duplex Diode Triode	6G	2.5	1.000	C	250	250	-20	8	8.3	1100	10000(2)	10000(2)	
56	27	Triode Detector-Amplifier	5A	2.5	1.000	C	250		-13.5	5	13.8	1450	350	20000	

# PHILCO TUBES (CONTINUED)

Type Number	Similar To	DESCRIPTION	Base Connection	Filament Volts	Filament Amps.	Filament Type	Plate Volts	Screen Volts	Control Grid Volts	Plate Current (mA)	Amplification Factor	Mutual Conductance Microhmohms	Power Output in Milliwatts	Max. Plate Load in Ohms
57		Triple Grid Detector Amplifier	6F	2.5	1.000	C	250	100	-3.0	2	1500	1225		
58		Super Control R.F. Amplifier	6F	2.5	1.000	C	250	100	-3.0	8.2	2.0	1280	1600	
59		Power Amplifier Pentode	7A	2.5	2.000	C	250	250	-18.0	35	9	100	2500	6000
70L7GT		Rectifier-Beam Power Amplifier	8AA	70.0	0.150	C	R125 A110	110	-7.5	40	3	7500	1800	2000
71A		Power Amplifier Triode	4D	5.0	0.250	F(O)	180		-40.5	20	3	1700	790	4800
75		Duplex Diode Triode	6G	6.3	0.300	C	250		-2.0	0.8	100	1100		
76	37	Triode Detector-Amplifier	5A	6.3	0.300	C	250		-13.5	5	13.8	1450		
77	6C6	Triple Grid Detector-Amplifier	6F	6.3	0.300	C	250	100	-3.0	2.3	0.5	1500	1250	
78	6D6	Super Control R.F. Amplifier	6F	6.3	0.300	C	250	100	-3.0	7.0	1.7	1160	1450	
79		Class B Twin Amplifier	6H	6.3	0.600	C	250		0	10.5			8000(2)	14000(2)
80		Full Wave Rectifier	4C	5.0	2.000	F(O)	400			110				
81		Half Wave Rectifier	4B	7.5	1.250	F(O)	700			85				
82		Full Wave Rectifier *	4C	2.5	3.000	F(O)	500			125				
83	5Z3	Full Wave Rectifier *	4C	5.0	3.000	F(O)	500			250				
83V	83-5Z3	Full Wave Rectifier	4AD	5.0	2.000	C	400			200				
84-6Z4	6Z4	Duplex Diode Triode	5D	6.3	0.500	C	350			75				
85		Power Amplifier Pentode	6G	6.3	0.300	C	250		-20.0	8	8.3	1100	350	20000
89		Triode Detector-Amplifier	6F	6.3	0.400	C	250	250	-25.0	32	5.5	125	1800	3400
X99		Twin Triode Amplifier	4D	3.3	0.063	F(O)	90		-4.5	2.5	6.6	425		
XX8		Twin Triode Amplifier	See XX8 Base Connection	2.8	0.050	F	90		0	4.5	14.5	1300	Triode #1 Series	
			2.8	0.050	F	90		0	3.2	11.00	14.2	1100	Triode #2 Filament	
			1.4	0.10	F	90		0	4.5	13.00	14.5	1300	Parallel Filament	
XXD		Twin Triode Amplifier Oscillator	8AC	12.6	0.150	C	100		0	10.8	17	2600	Each	
					12.6	0.150	C	100		-3	5.0	16	1900	Each
XXFM		Diode-Diode Triode	See 8AA Base Connection	6.3	0.300	C	250		-1	1.9	100	1500	Triode	25
XXL		Triode Oscillator	5AC	6.3	0.300	C	100		0	10	25	3600		
117L7GT		Rectifier-Beam Power Amplifier	8AD	117.0	0.090	C	R105 A105	105	-5.5	45.0	4.0	4000	550	4000
117Z6GT/G		Full Wave Rectifier	7AR	117.0	0.075	C	117			60				
1232	7G7	Triple Grid Amplifier	8V	6.3	0.450	C	250	100	-2	6	2	3600	4500	
182B	483	Power Amplifier Triode	4D	5.0	1.250	F(O)	250		-35.0	18	5	1500	1750	
183	483	Power Amplifier Triode	4D	5.0	1.250	F(O)	250		-40.0	25	3.2	1800	2000	
485	484	Triode Detector-Amplifier	5A	3.0	1.250	C	180		-9.0		9	12.5	1350	

A—Provided filament circuits will accommodate change in filament current.  
 B—Mercury vapor rectifier.  
 C—Octal Base.  
 F—Types 1A46, 1A46-05G, and 1ES6 are identical to previous types.  
 F(O)—Type 1A46-05G.  
 G—Suppressor grid terminal of socket to cathode terminal.  
 □ Both grids returned to F—pin #8.  
 Section #2 is recommended for the oscillator with grid leak returned properly to avoid oscillator starting difficulties.

NOTES  
 Majestic types 57A5-58A5 6.3 volt tubes not replaceable by regular types 57 and 58 which are 2.5 volt tubes.  
 \*Column 2—Similar to lists types which are similar to purchase for interchangeable except in a very few cases.  
 Some Servicemen have found that 565 substitutes quite satisfactorily for 6A5—since the 6A5 and 635 are quite similar it may be possible the some substitution can be made with the 635.

Type 76 may be used to replace 36-67A for greater sensitivity in most cases without circuit changes.

Type Filament  
 F(O)—Oxide Coated Filament  
 F1)—Thoriated Tungsten Filament  
 C—Oxide Coated Cathode